

REHABILITATION OF SEVEN GRAND CENTRAL PARKWAY BRIDGES BETWEEN UNION TURNPIKE AND COMMONWEALTH BOULEVARD

DESIGN-BUILD PROJECT

PIN X051.59, Contract D900057

Request for Proposals

Addendum #5

April 14, 2023

Modification to the Request for Proposals

REHABILITATION OF SEVEN GRAND CENTRAL PARKWAY BRIDGES BETWEEN UNION TURNPIKE AND COMMONWEALTH BOULEVARD

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Note to Proposers

Differences between the deleted pages and the revised pages have been identified as follows:

- Brackets have been inserted on the left-hand margin of the pages to indicate where changes have been made to the documents; and
- Text additions have been shown in underlined red font and text deletions have been shown in crossed out red font.

General Instructions

Delete Page C-9 of the ITP – Appendix C – Technical Submittal, and substitute with the attached revised Page C-9.

Delete Forms SCD and WPS of the ITP – Appendix E – Forms, and substitute with the attached Forms SCD and WPS.

Delete Pages 10C, 10D, 127, 133, 143, and 151 of the RFP – Part 3 – Project Requirements, and substitute with the attached revised Pages 10C, 10D, 127, 133, 143, and 151.

Delete Pages 43 and 44 of the RFP – Part 5 – Special Provisions, and substitute with the attached revised Pages 43 and 44.

Delete Page iv of the RFP – Part 6 – RFP Plans, and substitute with the attached revised Page iv.

No other provision of the solicitation is otherwise changed or modified.

Table C Format of Volume 2

Proposal Component	Reference	
Volume 2, Section 1 – Design-Build Organization and Process		
Volume 2, Section 1A – Key Personnel		
Key Personnel Form R	C2.1	
Volume 2, Section 1B – Overall Design-Build Team Organization		
Design-Build Team Organization Chart (Narrative, Max 5 pages plus 11x17 org chart)	C2.2.1	
Design-Build Team Communication Protocol (Narrative, Max 5 pages plus 11x17 communication graphic)	C2.2.2	
Design-Build Quality Control Plan (max <u>20</u> 15 pages plus org charts)	C2.2.3	
Volume 2, Section 2 – Design Build Approach to the Project (Technical Solu	tions)	
Section 2A – Project Understanding		
Project Understanding (Narrative, max <u>10</u> 6 pages, Form R2 – max 4 pages)	C3.1	
Section 2B – Design Solutions		
Design Approach (Narrative, max <u>12</u> 10 pages)	C3.2.1	
Copies of Department's approval letters for each ATC that is incorporated into the Proposer's Proposal along with each submitted ATC that was approved and used.	C3.2.1	
Section 2C – Construction Approach (Means and Methods)		
Overall Project Construction Sequence (maximum 6 pages)	C3.3.1	
Work Zone Traffic Control (maximum <u>5</u> 3 pages)	C3.3.2	
Protection of Existing Facilities (maximum 1 pages)	C3.3.3	
Utility Work (maximum 2 pages)	C3.3.4	
Drainage Modifications (maximum 1 page)	C3.3.5	
Attachment A – Design Drawings		
Project Limits	C3.2.2	
General Configurations	C3.2.2	
Construction Phasing	C3.2.2	
Demolition Limits	C3.2.2	
Work Zone Traffic Control	C3.3.2	
Attachment B – Project Schedules		
Initial Baseline Progress Schedule (maximum 50 pages)	C4.1	
Initial Baseline Progress Schedule Narrative (maximum 15 pages)	C4.1	
Form SCD – Schedule of Contract Durations	C4.2	

Note: Volume 2, Attachment A – Design Drawings, shall be submitted in a separate 11"x17" binder.

FORM SCD SCHEDULE OF CONTRACT DURATIONS

Table SCD - 1

OVERALL PROJECT COMPLETION (See Note 1 and 2)			
ACTIVITY	DURATION (Calendar Days past NTP)	BID DATE (MM/DD/YYYY)	LIQUIDATED DAMAGES AMOUNT (PER DAY) (See Note 3 and 4)
PROJECT SUBSTANTIAL COMPLETION (See Note 1 and 2)			\$10,000
PROJECT COMPLETION (See Note 1 and 2)			\$7,000

- 1. The Project Completion Date, to be included in the DB Agreement, Article 4.2, shall be defined by the number of calendar days past NTP as proposed by the successful Proposer and agreed to by the Department. Project Substantial Completion for the purposes of this Form SCD is defined as all construction activities completed, and no additional impacts to traffic and pedestrians. Remaining paperwork (i.e. As-Builts, close-out documentation, payments, and demobilization) may occur after the Project Substantial Completion date for the purposes of this Form SCD.
- 2. The Project Completion Date shall be computed by adding 90 calendar days to the Project Substantial Completion Date from Table SCD-1 and shall include complete demobilization from the work site(s).

The Design Builder's attention is directed to the fact that in no event shall the Project Substantial Completion Date in Table SCD-1 exceed 12/1/2026. In the event the Project Substantial Completion Date exceeds 12/1/2026, it will result in the determination of non-responsiveness.

- 3. Liquidated Damages will be assessed, in the amount indicated in Table SCD-1, for failure to achieve Project Substantial Completion and Project Completion as required.
- 4. Multiple Liquidated Damages may be assessed concurrently for failure to complete the required project work in accordance with the Design-Builder's SCD provisions. In the event multiple liquidated damages are being assessed due to the Design-Builder's failure to perform, the sum-total of the liquidated damages shall be capped at fifty thousand dollars (\$50,000.00) per day.

Table SCD - 2

IMPACTS TO TRAFFIC (See Note 5)					
PROJECT COMPONENT	TRAFFIC IMPACT DURATION (CALENDAR DAYS)		PROJECT COMPONENT DURATION		LIQUIDATED DAMAGES AMOUNT (PER DAY) (See Notes 4 & 6)
BIN 1065149 – GRAND CENTRAL PARKWAY OVER WINCHESTER BLVD AND CROSS ISLAND PARKWAY (See Note 7)	Max Allowed 1000		\$20,000		
BIN 106514A – RAMP H OVER CROSS ISLAND PARKWAY (See Note 8)	Max Allowed 350		\$10,000		
WORK WITHIN DSNY PARKING AREA (BETWEEN PIER 7 AND PIER 10) (See Note 9)	Max Allowed 750900		\$10,000		

- 5. Traffic Impact Duration is defined as the number of consecutive Calendar Days between the date of the first traffic Impact Day for a given roadway and the date of the last Traffic Impact, in accordance with Notes 7, 8, & 9.
 - a) Lane closures to collect engineering data in accordance with the OCMC Permit and the RFP may be performed without counting toward the Traffic Impact Duration provided no physical work of any kind is performed.
 - b) It is the Department's understanding that WZTC devices, lane tapers, drops, etc. may extend into adjacent approach and departure deck and ramp areas that are not included in the Design-Builder's intended active work area. These adjacent WZTC devices will not initiate counting of a Traffic Impact Day on adjacent non-active work areas unless the Design-Builder commences with some permanent work associated with these adjacent approach and departure locations.
 - c) Landscaping work, including vegetative plantings, is excluded from the counting of Traffic Impact Days.
- 6. Liquidated Damages will be assessed, in the amount indicated, for each calendar day or partial calendar day due to failure to achieve all necessary work associated with the Project Component as submitted by the Proposer and indicated in Table SCD-2.
- 7. BIN 1065149 Grand Central Parkway over Winchester Blvd and Cross Island Parkway is defined as all work associated with the reconstruction of the Grand Central Parkway from STA 98+00 to STA 179+00 that will impact traffic on the Grand Central Parkway. Counting of Traffic Impact Days will begin upon commencement of the setup of WZTC devices on the Grand Central Parkway to facilitate the work, and will continue until all phases of construction, and

all work associated with the reconstruction has been completed, and all travel lanes and shoulders may be open to vehicular traffic, in their final configuration, with no further disruption to traffic. This work includes but is not limited to: deck replacement, permanent concrete bridge and median barriers, bridge drainage systems, deck grinding and grooving, final pavement markings, signs, sign structures, bridge railing, and bridge lighting.

- 8. BIN 106514A Ramp H over Cross Island Parkway is defined as all work associated with the reconstruction of Ramp H that will impact traffic. Counting of Traffic Impact Days will begin on the first day that vehicular traffic is detoured from the ramp and will continue until all construction work is complete and travel lanes and shoulders are permanently open to vehicular traffic in their final project configuration, with no further disruption to traffic. This work includes but is not limited to: Deck replacement, pavement markings, signs, barriers, and street lighting.
- 9. Work Within DSNY Parking Area is defined as all work associated with the reconstruction of the Grand Central Parkway between Piers 7 and 10 which requires physical presence within the DSNY Parking Area and impacts DSNY's use of their parking area. Counting of Traffic Impact Days will begin on the first day that construction work which requires access within the parking area begins and will continue until all physical work requiring access within the parking area is complete with no further disruption to DSNY operations. This work includes but is not limited to: installation and removal of shielding, substructure repairs and sealing, superstructure repairs and painting, bearing replacements, drainage, lighting, and site restoration.

Note that work within the DSNY Parking Area may not begin prior to September April 1, 2024, with the exception of the installation of primary shielding. Primary shielding may be installed prior to this date provided that the Design-Builder coordinates this work with DSNY. This shielding installation will not start the traffic impact duration. The Design-Builder shall assume that they cannot occupy more than 50% of the DSNY Parking Area after September 1, 2024. at all times, and they shall maintain DSNY access in accordance with Part 3, Section 19 of the RFP. All proposed work and work locations within the DSNY Parking Area shall be coordinated with DSNY.

The Proposer commits to meet the Contract Durations specified above.

PROPOSER	
SIGNED	
DATE	
NAME	
(printed or typed)	
TITLE	

FORM WPS WORK PAYMENT SCHEDULE

WORK PAYMENT SCHEDULE		
WORK PAYMENT SCHEDULE NO. 1 – ITEM 800.06000115 BIN 1065149 – GRAND CENTRAL PARKWAY OVER WINCHESTER BOULEVARD AND CROSS ISLAND PARKWAY	MAXIMUM PERCENT OF LUMP SUM PRICE	PERCENT OF LUMP SUM PRICE (To be completed by D-B) ⁽¹⁾
Work Zone Traffic Control	10%	
Demolition and Removal of Existing Bridge Deck, Approach Slabs, Barrier, Railing, and Drainage System	30%	
Jacking and Removal of Existing Bearings and Pedestals	10%	
Removal of Existing Lighting, Signage, and Installation of Temporary Lighting and signage	5%	
Construct Reinforced Concrete Bridge Deck, Barrier, Railing, Approach Slabs, and Drainage System	40%	
Fabricate and Install Bearings and Pedestals	10%	
Strengthen or Replace Existing Bridge Components	5%	
Paint steel	10%	
Install Above Deck Roadway Lighting, Signage, and Striping	5%	
Highway Approach Milling and Paving	5%	
Punch list work, Site Cleanup and Restoration	2% (fixed)	2% (fixed)
Final Acceptance (Per DB §109-09B)	1% (fixed)	1% (fixed)
Final Agreement (Per DB §109-09D)	2% (fixed)	2% (fixed)

WORK PAYMENT SCHEDULE		
WORK PAYMENT SCHEDULE NO. 2 – ITEM 800.06000215 BIN 106514A – RAMP H OVER CROSS ISLAND PARKWAY	MAXIMUM PERCENT OF LUMP SUM PRICE	PERCENT OF LUMP SUM PRICE (To be completed by D-B) ⁽¹⁾
Work Zone Traffic Control	10%	
Demolition and Removal of Existing Bridge Deck, Approach Slabs, Barrier, and Railing	30%	
Jacking and Removal of Existing Bearings and Pedestals	10%	

Removal of Existing Lighting, Signage, and Installation of Temporary Lighting	5%	
Construct Reinforced Concrete Bridge Deck, Barrier, Railing, and Approach Slabs	40%	
Fabricate and Install Bearings and Pedestals	10%	
Paint steel	5%	
Install Above Deck Roadway Lighting, Signage, and Striping	3%	
Highway Approach Milling and Paving	2%	
Punch list work, Site Cleanup and Restoration	2% (fixed)	2% (fixed)
Final Acceptance (Per DB §109-09B)	1% (fixed)	1% (fixed)
Final Agreement (Per DB §109-09D)	2% (fixed)	2% (fixed)

WORK PAYMENT SCHEDULE		
WORK PAYMENT SCHEDULE NO. 3 – ITEM 800.06000315 BIN 1076529 – GRAND CENTRAL PARKWAY OVER VANDERBILT PARKWAY SHARED USE PATH	MAXIMUM PERCENT OF LUMP SUM PRICE	PERCENT OF LUMP SUM PRICE (To be completed by D-B) ⁽¹⁾
Work Zone Traffic Control	10%	
Demolition and Removal of Existing Bridge Deck, Approach Slabs, Barrier, and Railing	30%	
Jacking and Removal of Existing Bearings and Pedestals	10%	
Removal of Existing Lighting, Signage, and Installation of Temporary Lighting	5%	
Construct Reinforced Concrete Bridge Deck, Barrier, Railing, and Approach Slabs	40%	
Fabricate and Install Bearings and Pedestals	8%	
Paint steel	5%	
Install Above Deck and Below Deck Roadway Lighting, Signage, and Striping	5%	
Highway Approach Milling and Paving	5%	
Miscellaneous (WZTC, Landscaping, etc.)	7%	
Punch list work, Site Cleanup and Restoration	2% (fixed)	2% (fixed)
Final Acceptance (Per DB §109-09B)	1% (fixed)	1% (fixed)
Final Agreement (Per DB §109-09D)	2% (fixed)	2% (fixed)

WORK PAYMENT SCHEDULE		
WORK PAYMENT SCHEDULE NO. 4 – ITEM 800.06000415 BIN 1065139 – GRAND CENTRAL PARKWAY OVER UNION TURNPIKE	MAXIMUM PERCENT OF LUMP SUM PRICE	PERCENT OF LUMP SUM PRICE (To be completed by D-B) ⁽¹⁾
Work Zone Traffic Control	10%	
Perform Full and Partial Depth Deck Repairs	40%	
Perform Full and Partial Depth Approach Slab Repairs	20%	
Remove Existing Joint Seals and Adjacent Deteriorated Concrete	5%	
Install New Joint Headers and New Armorless Joint Seals	5%	
Paint steel	10%	
Remove and Replace Existing Raised Median, Median Steel Railing, Median Approach Railing, and Longitudinal Joint Seal	20%	
Punch list work, Site Cleanup and Restoration	2% (fixed)	2% (fixed)
Final Acceptance (Per DB §109-09B)	1% (fixed)	1% (fixed)
Final Agreement (Per DB §109-09D)	2% (fixed)	2% (fixed)

WORK PAYMENT SCHEDULE		
WORK PAYMENT SCHEDULE NO. 5 – ITEM 800.06000515 BIN 1076540 – RAMP G OVER ALLEY POND PARK ACCESS ROAD	MAXIMUM PERCENT OF LUMP SUM PRICE	PERCENT OF LUMP SUM PRICE (To be completed by D-B) ⁽¹⁾
Work Zone Traffic Control	10%	
Perform Full and Partial Depth Deck Repairs	50%	
Perform Full and Partial Depth Approach Slab Repairs	20%	
Clean, Lubricate, and Reset all Bearings	20%	
Remove Existing Joint Seals and Adjacent Deteriorated Concrete	5%	
Install New Joint Headers and New Armorless Joint Seals	5%	
Paint steel	10%	
Remove and Replace Existing Two-Rail Bridge Railing and Approach Railing	10%	
Punch list work, Site Cleanup and Restoration	2% (fixed)	2% (fixed)
Final Acceptance (Per DB §109-09B)	1% (fixed)	1% (fixed)
Final Agreement (Per DB §109-09D)	2% (fixed)	2% (fixed)

WORK PAYMENT SCHEDULE		
WORK PAYMENT SCHEDULE NO. 6 – ITEM 800.06000615 MISCELLANEOUS WORK	MAXIMUM PERCENT OF LUMP SUM PRICE	PERCENT OF LUMP SUM PRICE (To be completed by D-B) ⁽¹⁾
Work Zone Traffic Control	10%	
BIN 1076610 Westbound C-D Road Over Cross Island Parkway Southbound and BIN 1076620 Westbound C-D Road Over Cross Island Parkway Northbound - Repair Approach Railing, full and partial depth concrete repairs, and striping.	20%	
BIN 1076610 Westbound C-D Road Over Cross Island Parkway Southbound and BIN 1076620 Westbound C-D Road Over Cross Island Parkway Northbound - Roadway Repairs and StripingFull and partial depth concrete repairs, and striping.	20%	
Westbound C-D Road – Pavement Repairs, Remove and	<u>10%</u>	
Replace Damaged Guide Rail Allow Dand Park Assess Boad Milling and Descriptions	15%	
Alley Pond Park Access Road Milling and Resurfacing Alley Pond Park Access Road Landscaping	10%	
Alley Pond Park Access Road Parking Lot and Sidewalk	10% 10% 5%	
Connection Alley Pond Park Access Road – Remove and Replace Guide Rail	10/8 3/6	
Winchester Boulevard – Sidewalk Replacement	5%	
Alley Pond Park Access Road-Grand Central Parkway— Remove and Replace Damaged Guide Rail	5%	
Overhead Sign Structure Replacement	10%	
Miscellaneous Landscaping within Project Limits	10%	
Clean the Existing Drainage System within Project Limits	10%	
Punch list work, Site Cleanup and Restoration	2% (fixed)	2% (fixed)
Final Acceptance (Per DB §109-09B)	1% (fixed)	1% (fixed)
Final Agreement (Per DB §109-09D)	2% (fixed)	2% (fixed)

- (1) Percent of Lump Sum Price to be completed by Proposer. Total percent for all Work Items shall equal 100%
- (2) Subsequent to Selection of Best Value, the Design-Builder may submit to the Department a more detailed Work Payment Schedule which breaks individual work items into multiple stages, for the Department's review and acceptance. However, the sum of the percentages proposed for each stage shall equal the percentage for that work item submitted by the Design-Builder included on Form WPS, and in no case shall the payment for any individual stage be more than 50% nor less than 10% of the total percentage bid for that work item.
- (3) Payment will be verified through the CPM Cost Loaded schedule per SP-8 and SP-3

Remove and Replace Existing Raised Median, Median Steel Railing, Median Approach Railing, and Longitudinal Joint Seal	20%	
Punch list work, Site Cleanup and Restoration	2% (fixed)	2% (fixed)
Final Acceptance (Per DB §109-09B)	1% (fixed)	1% (fixed)
Final Agreement (Per DB §109-09D)	2% (fixed)	2% (fixed)

WORK PAYMENT SCHEDULE			
WORK PAYMENT SCHEDULE NO. 5 – ITEM 800.06000515 BIN 1076540 – RAMP G OVER ALLEY POND PARK ACCESS ROAD	MAXIMUM PERCENT OF LUMP SUM PRICE	PERCENT OF LUMP SUM PRICE (To be completed by D- B) ⁽¹⁾	
Work Zone Traffic Control	10%		
Perform Full and Partial Depth Deck Repairs	50%		
Perform Full and Partial Depth Approach Slab Repairs	20%		
Clean, Lubricate, and Reset all Bearings	20%		
Remove Existing Joint Seals and Adjacent Deteriorated Concrete	5%		
Install New Joint Headers and New Armorless Joint Seals	5%		
Paint steel	10%		
Remove and Replace Existing Two-Rail Bridge Railing and Approach Railing	10%		
Punch list work, Site Cleanup and Restoration	2% (fixed)	2% (fixed)	
Final Acceptance (Per DB §109-09B)	1% (fixed)	1% (fixed)	
Final Agreement (Per DB §109-09D)	2% (fixed)	2% (fixed)	

WORK PAYMENT SCHEDULE		
WORK PAYMENT SCHEDULE NO. 6 – ITEM 800.06000615 MISCELLANEOUS WORK	MAXIMUM PERCENT OF LUMP SUM PRICE	PERCENT OF LUMP SUM PRICE (To be completed by D-B) ⁽¹⁾
Work Zone Traffic Control	10%	
BIN 1076610 Westbound C-D Road Over Cross Island Parkway Southbound and BIN 1076620 Westbound C-D Road Over Cross Island Parkway Northbound - Repair Approach Railing, full and partial depth concrete repairs, and striping.	20%	
BIN 1076610 Westbound C-D Road Over Cross Island Parkway Southbound and BIN 1076620 Westbound C-D Road Over Cross Island Parkway Northbound -	20%	

Roadway Repairs and StripingFull and partial depth concrete repairs, and striping.		
Westbound C-D Road - Pavement Repairs, Remove	<u>10%</u>	
and Replace Damaged Guide Rail		
Alley Pond Park Access Road Milling and Resurfacing	15%	
Alley Pond Park Access Road Landscaping	10%	
Alley Pond Park Access Road Parking Lot and Sidewalk	10% <u>5%</u>	
Connection Alley Pond Park Access Road – Remove		
and Replace Guide Rail		
Winchester Boulevard – Sidewalk Replacement	5%	
Alley Pond Park Access Road-Grand Central Parkway –	5%	
Remove and Replace Damaged Guide Rail		
Overhead Sign Structure Replacement	10%	
Miscellaneous Landscaping within Project Limits	10%	
Clean the Existing Drainage System within Project Limits	10%	
Punch list work, Site Cleanup and Restoration	2% (fixed)	2% (fixed)
Final Acceptance (Per DB §109-09B)	1% (fixed)	1% (fixed)
Final Agreement (Per DB §109-09D)	2% (fixed)	2% (fixed)

- (1) Percent of Lump Sum Price to be completed by Proposer. Total percent for all Work Items shall equal 100%
- (2) Subsequent to Selection of Best Value, the Design-Builder may submit to the Department a more detailed Work Payment Schedule which breaks individual work items into multiple stages, for the Department's review and acceptance. However, the sum of the percentages proposed for each stage shall equal the percentage for that work item submitted by the Design-Builder included on Form WPS, and in no case shall the payment for any individual stage be more than 50% nor less than 10% of the total percentage bid for that work item.
- (3) Payment will be verified through the CPM Cost Loaded schedule per SP-8 and SP-3

1.14 INTERIM COMPLETION MILESTONE

This Project's Interim Completion Milestones, if applicable, are defined as shown in Form SCD.

The Interim Completion Milestone Dates may not be changed without written approval by the Department's Project Manager.

For straight steel I-girder bridges that have a skew greater than 20° , a refined analysis method is required. The type of refined analysis method shall be determined by the skew (0) and the skew index (Is). The skew index is defined in NYSDOT Load and Resistance Factor Design (LRFD) Bridge Design Specifications Equation 4.6.3.3.2-2 and shall be determined for each span of the bridge. Additionally, the use of discontinuous diaphragm layouts would require a submission of a Request for Design Exception.

- If $20^{\circ} < \theta \le 45^{\circ}$ and Is ≤ 0.3 then a 2D grid or 3D finite element model shall be used for the design of the girders, diaphragms, and connections.
- If $\theta > 45^{\circ}$ or Is > 0.3 then a 3D finite element model shall be used for the design of the girders, diaphragms, and connections.

Repair deficient steel structural elements as shown in Part 6 Directive Plans; payment for this work will be made under item 800.06010115 Steel Superstructure Repair Work – Directive Repairs and the price bid should be based upon the total quantity shown including contingency. Steel repairs that may be required beyond that shown in Part 6 will be paid for by the Steel Superstructure Repair Work – Unanticipated Repairs Item 800.06020015. All repairs shall bring members to their as-built capacity, at a minimum, or to the requirements of the Design Criteria Table, whichever is greater.

Refer to Part 6, Directive Notes for color requirements related to painted steel superstructure elements, if any.

- F) Bearings: With the exception of fully integral abutments and/or fully integral pier caps_and ,—all new beam/girder supports shall utilize bearings that conform with Section 12 of the NYSDOT Bridge Manual or Type E.B. sliding expansion bearings in accordance with NYSDOT Special Specification Item 565.20310003 and the "Elastomeric Bearings with Sliding Plate (Type EB) Expansion" details provided in Part 7. Design and location of bearings shall provide for easy maintenance and accessibility and future bearing replacement. The use of tie-down devices, or any other type of bearing uplift restraints, is prohibited. Section 12.3 of the NYSDOT Bridge Manual is modified such that sliding bearings that utilize Dimpled and Lubricated PTFE are permitted.
- G) Substructures: All concrete repair areas with exposed reinforcing bars greater than 1 sq. ft. shall utilize passive galvanic protection anodes in conformance with Item 582.99000016 Embedment of Galvanic Anodes in Concrete. These anodes shall be of the type and spacing as shown in the Directive Plans.

Repair deficient concrete substructure elements in accordance with the Directive Plans. Payment for all work will be made under Item 800.06060115 Concrete Substructure Repair Work – Directive Repairs and the bid price shall be based upon the total quantity shown including contingency. Concrete repairs that may be required beyond the square footage shown in the Directive Plans will be paid for under the Concrete Substructure Repair Work

15.3.5 Proposed Planting

The Design-Builder shall not use invasive plant species for any of the proposed planting as required by the New York State 2012 Invasive Species Prevention Act, or a monoculture of plant species, to reduce the potential for disease or invasive insect species to eradicate the proposed planting. Planting shall be located in a manner that does not interfere with the safe use of travel ways. Planting should be designed in a manner that provides a mix of plant material species to create seasonal interest for the traveling public.

Deciduous and evergreen tree, shrubs, groundcovers, and herbaceous plantings shall be as per the requirements of Standard Specification 611.01xx, Planting

Topsoil for tree, shrub, groundcovers and herbaceous plants shall be as per the requirements of Standard Specification 610.1404 Topsoil – Special Planting Mix.

Topsoil for any turf establishment shall be as per the requirements of Standard Specification 610.1403 Topsoil – Lawns

Mulch for any planting shall be as per the requirements of Standard Specification 610.1102 Mulch for Planting Type C – USDA-APHIS Protocol Wood Chips

Watering any planting and turf shall be as per the requirements of Standard Specification 610.19 Watering Vegetation

Post planting care and replacement plantings shall be as per the requirements of Special Specification 611.190X0024, Post Planting Care with Replacement for a period of one year.

15.3.6 Requirements for Alley Pond Park Access Road

Winchester Boulevard Entrance and Entrance Plaza:

- Reconstruct curbs and reduce corner radii to the modern local road standard of 20' or less as per Part 6 Directive Plan Sheets.
- Create small entrance plaza by installing hex pavers in pedestrian "bump out" areas and replace
 existing deteriorated asphalt. Plant native understory shrubs, selected in consultation with Parks
 and the NYC Native Species Planting Guide behind pavers and to frame signage ("Greeting
 Garden"). Create ground-mounted entrance signage designed in consultation with NYC Parks.

Alley Pond Park Service Road:

- Rails and gates are to be designed in consultation with NYC Parks. Conceptual scope is included in Part 6 Directive Plans and should follow all NYC Parks Standards.
- Soil Slope Area Planting: North of the GCP main line viaduct footprint, plant native shade and drought-tolerant understory shrubs and/or understory trees selected in consultation with Parks, spaced densely to create a mass.

In addition to the landscaping improvements described above, Alley Pond Park Access Road will be resurfaced below BIN 1065149 from Sta. A 12+00 to the intersection of Alley Park Road and Winchester Boulevard – Douglaston Parkway, as per requirements in Part 3 Section 20.3.3.

Refer to the "More Resources for Contractors" Section at https://www.nycgovparks.org/permits/construction#contact-us for the latest NYCDPR standard specifications and details.

of 4:1

- 2. Average illumination for local commercial streets 0.8 to 1.0 foot-candles (fc) with average to Min. Ratio of 4:1
- 3. Average illumination for Highway Gore Areas 1.2 fc with average to Min. Ratio of 4:1
- 4. Average illumination for ramps 1.2 fc with average to Min. Ratio of 4:1
- 5. Average illumination for highway underdeck lighting 4 fc with average to Min. Ratio of 4:1. Average illumination for local streets underdeck lighting –3fc with average to Min. Ratio of 4:1
- 6. Average illumination for pedestrian and sidewalk 0.6 fc to 0.8 fc with average to Min. Ratio of 4:1
- 6.7. Average illumination for Pedestrian/Bike lane shared used underpass 4 footcandles (fc) with average to min. Ratio of 4:1.

Correlated Color Temperature (CCT) of luminaire shall be 3000 Kelvin. Light Loss Factor (LLF) shall be 0.89.

All above values are general design concepts, exact design and values shall conform at review process of NYC DOT Engineering for each project location.

- C) Utilizes approved items that conform to latest NYCDOT Street Lighting Standard Specifications and Drawings.
- D) Can be fully and seamlessly integrated into the existing-to-remain lighting elements adjacent to the Project limits.
- E) Utilizes control Cabinet system that automatically controls lighting operation between dusk and dawn, control/fuse box, otherwise as per approved design plans.
- F) Utilizes lighting components that are readily available and not proprietary equipment; and
- G) All proposed boxes shall have a max of 4 knockouts.
- H) Concrete Roadway boxes at unpaved areas, there shall be an RFID marker as per 3M ball markers No. 1428-XR/ID, For each box, contractor shall add marker serial number of used marker ball to as-built plans."
- I) All proposed conduits shall not exceed 9 live wires.

17.3.2.2 Limits of Lighting Work

- A) BIN 1065149 (carries GCP over Winchester Blvd and CIP) The Design-Builder shall replace the above deck lighting as per the requirements in Section 17.3. The Design-Builder shall also replace any lighting impacted by the work associated with the U-Wall work.
- B) BIN 106514A (carries Ramp H Bridge over CIP) The Design-Builder shall replace the above deck lighting as per the requirements in Section 17.3. The Design-Builder shall also replace any lighting impacted by the work associated with the U-Wall work.
- C) BIN 1076529 (carries GCP over Vanderbilt Parkway) The Design-Builder shall replace the above deck and below deck lighting as per the requirements in Section 17.3. The Design-Builder shall also replace any lighting impacted by the work associated with the U-Wall work.

The Design-Builder shall not restrict traffic (vehicular, pedestrian, bicycle) on the Vanderbilt Parkway Trail or Alley Park Road between 6AM and 10PM (all days). No construction activity shall take place, no access will be allowed, and no equipment or material shall be placed or stored on Vanderbilt Parkway or within 10 feet of the curb between 6AM and 10PM (all days).

No construction activity shall be performed along any detour route while the detour is in place. Should the Design-Builder elect to use the Ramp H detour depicted in Part 6 — RFP Plans, the following restrictions shall apply:

The Ramp G detour shall not be in place at the same time as the Ramp H detour.

Work on the westbound CD road or the westbound CD road bridges over the Cross Island Parkway that requires any shoulder or lane closure on the westbound CD road shall not take place while the Ramp H detour is in place.

Work within the area beneath the GCP viaduct used by DNSY (between piers 7 and 10) shall be restricted as follows:

- No work shall occur within this area prior to September April 1, 2024.
- After September April 1, 2024, the Design-Builder shall not occupy more than 50% of the area within the footprint of the bridge at any one time. The remainder of the area shall be accessible to DSNY and its contractors.
- Access from Winchester Boulevard to areas not in use by the Design-Builder and to the parking area located to the south of the bridge shall be maintained at all times.
- The Design-Builder shall provide an unobstructed 20-foot wide access way between the parking area south of the bridge and the DSNY garage at all times.
- The Design-Builder shall perform a preconstruction survey of the parking area prior to any work in this area.
- The Design-Builder shall restore the parking area to its original condition at the end of construction.

19.3.6 Minimum Lane Widths during Construction

The Design-Builder shall maintain the following minimum GCP travel lane widths and roadway widths during construction:

- Minimum lane width = 10'-6"
- Minimum width of roadway between face of curb/barrier:
 - Single lane ("cattle-chute") = 12'-6"
 - o Two lanes = 22'
 - o Three lanes = 32' (10'-6"/10'-6"/11')
 - Four Lanes = 43' (10-6'/10'-6"/11'/11')

The Design-Builder shall maintain the following minimum travel lane widths and roadway widths during construction on Ramp G and Ramp H:

- Minimum lane width = 11'-0"
- Minimum width of roadway between face of curb/barrier:
 - Single lane = 14'-0"
 - Two lanes = 22'

The Design-Builder shall maintain a minimum travel lane width of **11 feet** on all other local roadways during construction.

19.3.7 Portable Variable Message Signs

The Design-Builder shall provide, as a minimum, 10 Portable Variable Message Signs, but more should the Design-Builders design dictate, for the duration of this Contract. The Portable Variable Message Signs shall REHABILITATION OF SEVEN GRAND CENTRAL PARKWAY BRIDGES BETWEEN UNION TURNPIKE AND COMMONWEALTH BLVD 151 Part 3 - Project Requirements PIN X051.59, Contract D900057 Addendum #5 April 14, 2023

5.3.4 Welding Procedure

The bearing manufacturer shall submit a Welding Procedure to the Deputy Chief Engineer Structures (DCES) for each welding process to be used in the manufacture of the bearings. No welding shall be performed until the manufacturer receives an approved Welding Procedure.

5.3.5 Bearing Tolerances

The finished elastomeric bearings shall conform to the design dimensions, with the tolerances listed in Section 700 of the Standard Specifications.

5.3.6 Compression / Deflection

Test conditions are outlined in the Standard Specifications.

5.3.7 Adhesion

Visual inspection as outlined in the Standard Specifications.

SP-6. PAYMENT REDUCTIONS, LIQUIDATED DAMAGES AND EARLY COMPLETION BONUS

Time is an essential element of the Contract, and it is important that the Work be pursued vigorously to completion. The public is subject to detriment and inconvenience when full use of infrastructure cannot be maintained during the construction of the Project. Therefore, payment reductions and/or liquidated damages will be assessed against the Design-Builder under the circumstances specified below. Conversely, an early completion bonus will be paid to the Design-Builder for completing the Project before the Project Completion Date in accordance with the circumstances specified below.

6.1 PAYMENT REDUCTIONS AND LIQUIDATED DAMAGES

6.1.1 Project Completion

The Design-Builder shall pay liquidated damages, as described in DB § 108-03 – Liquidated Damages, and as shown on Form SCD, Table SCD-1, for failure to achieve Project Completion by the Project Completion Date. The Project Completion Date will be established based on the proposed duration provided in Table SCD-1 on Form SCD and described in Part 2 - DB 103-06 Sample Form of Contract Agreement, Article 4.2 Project Completion Date.

6.1.2 Interim Completion

The Interim Completion Milestone Date will be the date determined by adding the number of calendar days proposed by the Design-Builder on Form SCD (the Duration), to the date of the Notice to Proceed as issued by the Department. The Interim Completion Milestone Date may not be changed without written approval by the Department's Project Manager.

The Design-Builder shall be subject to liquidated damages for failure to meet the Interim Completion Milestone Date in accordance with Form SCD for each calendar day in excess of the total number of calendar days provided in the tables on Form SCD. Section not used.

6.1.3 Impacts to Traffic

The Design-Builder shall be subject to payment reductions and liquidated damages for each calendar day that traffic is impacted, at each site, in excess of the number of Traffic Impact Duration-Days indicated-provided in Table SCD-23 on Form SCD., and/or for each day that traffic is impacted in excess of the Traffic Impact Duration provided in Table SCD-3 on Form SCD. If both the number of Traffic Impact Days and the Traffic Impact Duration are exceeded at any given site, Liquidated Damages will be assessed twice each day both are exceeded.

6.1.4 Lane Closure Period Exceedances

Section not used.

6.1.5 Additional or Reduced Lane Closures

Section not used.

6.2 EARLY COMPLETION BONUS

Section not used.

SP-7. CONSTRUCTION INSPECTION REQUIREMENTS

These guidelines shall be used to develop the Design-Builder's Quality Control (QC) Plan. The intent of notes #1 and #2 below are to establish a minimum requirement for assigning the number of CI staff on the project. It is not intended to serve as a limit to the maximum number of CI staff that may be necessary or required based on the Design Builder's schedule, number of concurrent activities, or level of experience of the individual Construction Inspector(s) or other factors not described herein.

Construction Inspection QC Operations:

1. Primary Shift: The DB is required to furnish no less than 8 Full Time Construction Inspectors, FTCI, (not including the Resident Engineer or the Office Engineer). Upon commencement of the project (NTP), it is understood that the FTCIs will be logically increased to the inspection staff incrementally consistent with the project's schedule. The DB shall ensure adequate inspection staff is present on site, no less than two weeks prior to the need for the additional FTCI staff persons to allow for advance study and familiarization with the project. In any case, the 8 FTCI staff shall be on site for deployment no later than 180 calendar days from NTP. Subsequent to achieving the project substantial completion, as defined by the contract, the DB firm may similarly ramp down the inspection staff to align with the work remaining to complete the project and consistent with the project schedule, with the written approval of the Department's Project Manager. During project operations, the number of FTCI should be consistent with the Design Builder's planned operations and Table "Construction Inspection Requirements".

- moment slabs or approach slabs extending over top of the U-Wingwalls in accordance with the "Single Slope Barrier" on Approach Slab at U-Wingwall Details" provided in Part 7.
- 3-14. Permanent snow fence shall be attached to the back side of concrete barriers located above the under roadways and shall extend a minimum of 10'-0" beyond the outside edge of the shoulders. PVC coated fence fabric in accordance with NYSDOT Bridge Detail (BD) Sheets shall be used and extend a minimum of 2'-0" above the top of the concrete barrier.
- 3-15. A longitudinal gap of 2" shall be provided in the median between westbound and eastbound roadways and be sealed with an armorless joint seal located between concrete barriers. The joint seal width shall be such that the seal is compressed by 25% at 68°.
- 3-16. Remove existing approach slabs and construct new approach slabs with sleeper slabs and expansion joints. Expansion joints shall be located at the end of the approach slabs.
- 3-17. Remove existing fascia approach railings and install new railing transitions.
- 3-18. Remove existing median approach railings and construct new Single-Slope Concrete Median Barrier and concrete barrier transition.

GRAND CENTRAL PARKWAY OVER UNION TURNPIKEBIN: 1065139

- 4-1. The operational classification of this bridge is Essential.
- 4-2. Measure and record the existing minimum vertical clearance over travel lanes and shoulder lanes prior to the commencement of any work.
- 4-3. During construction, the following vertical clearances shall be provided: 14'-6"
- 4-4. For the final condition provide a minimum vertical clearance that at least matches the existing vertical clearance.
- 4-5. Perform full and partial depth deck repairs as indicated in the Directive Plans.
- 4-6. Perform full and partial depth approach slab repairs as indicated in the Directive Plans.
- 4-7. Perform substructure concrete repairs as indicated in the Directive Plans.
- 4-8. All exposed steel of Girder 1 and Girder 15 shall be cleaned and painted in accordance with Standard Specification Section 573 Structural Steel Painting: Field Applied Total Removal. The interface between the painted steel and concrete encasement shall be sealed with 100% silicon caulk.
- 4-9. Girders 2 through 14, for a distance of 5'-0" from each girder end of each span, and the intermediate beams above the pier, shall be cleaned and painted in accordance with Standard Specification Section 573 Structural Steel Painting: Field Applied Total Removal.
- 4-10. Design-Builder shall test paint samples to match the existing paint in the field. Topcoat paint color of all structural steel shall match the color determined in the field.
- 4-11. At both abutments and the pier, remove existing joint seals and adjacent deteriorated concrete, construction new joint headers in accordance with the Joint Reconstruction Details provided in Part 7 and install new armorless joint seals.